

## ORIGINES CELTICÆ

*Origines Celticæ (a Fragment), and other Contributions to the History of Britain.* By Edwin Guest. Two Vols. (London: Macmillan and Co., 1883.)

A MAN'S foes are indeed those of his own household. More than one literary or scientific reputation has been injured by the injudicious zeal of a writer's friends to publish after his death the fragments and papers he has left behind. It is natural to imagine that the work and suggestions of a scholar must all be equally valuable, and that by omitting to print any portion of it the world may be a loser. But it must be remembered on the other side that a good deal which a scientific worker commits to manuscript is never intended to see the light, and that in any case it is unfair to him to publish fragmentary remains which he has never had the chance of revising and correcting.

Dr. Guest's name is deservedly one of power among all those who have interested themselves in the earlier history of our country. His papers on the Invasion of Britain by Julius Cæsar, on the Campaign of Aulus Plautius, on the Four Roman Ways, and on the Saxon Conquests in Britain, are all models of sound scholarship and careful method. Dr. Freeman acknowledges him as a master, and declares that "whenever they meet on the same ground, he ranks above Palgrave and Kemble." Friends and public alike, therefore, might have expected to find in the fragments of his unfinished work, "*Origines Celticæ*," a fresh monument to his historical sagacity and another contribution of importance to the ethnology of our islands.

But friends and public alike must be grievously disappointed by what is actually placed before them. It would have been far better to spare the paper and ink that has been expended upon it, and what is of more consequence, the fair fame of the author himself. The "*Origines Celticæ*," which occupy the whole of the first volume and the opening pages of the second volume of Dr. Guest's posthumous works are a barren waste of unscientific theorising and uncritical collection of facts. The work carries us back to an age when the application of the scientific method to history was unknown, when ethnology and comparative philology were as yet undreamt of, and when the most amazing generalisations were built on the chance coincidence of proper names. In our search for the fathers of the Kelts we are transported to the Caucasus, to Egypt, and even to Ur of the Chaldees, and no shadow of doubt is allowed to cross the mind that Kimmerians and Kimbrians and Kymry are all one and the same people. The fact that there were Iberians in Georgia and Iberians in Spain is considered quite sufficient to prove that the early population of the Spanish Peninsula came from the sources of the Euphrates.

Dr. Guest's philology is as wild as his ethnology. He has heard of "Grimm's Laws"; but as their existence is inconvenient to his own etymological mode of procedure he denounces both the "laws" and their observers, though without understanding what they really mean. When Indo-European philology is treated in this way it is not surprising that the Rutennu of the Egyptian inscriptions are connected with the Assyrians of Resen, that initial *k* and *h* are said to interchange in Phœnician, or

that an Egyptian settlement in Kolkhis is declared to admit of "no reasonable doubt."

Dr. Guest's turn of mind, in fact, was literary rather than scientific. Wherever the question was a purely literary one, he displayed erudition, patience, and common sense; where, on the contrary, it was ethnological or philological, he showed himself as helpless as a Jewish rabbi. The old well-threshed statements of Greek and Latin writers are heaped together, and tricked out here and there with references to the discoveries of Egyptian and Assyrian research. How little he knew of the latter, however, may be judged from the frequent mistakes he makes when appealing to them, as when, for instance, he insists on calling Sumer Sommari, or tells us that Assurbani-pal lived in the ninth century B.C.

Had the "*Origines Celticæ*" appeared a hundred years ago they would have been hailed as a profoundly learned and interesting book. There is no place for them in an age when the departments of knowledge with which they deal have been occupied by the method and spirit of inductive science. To know what Dr. Guest really was and of what he was really capable we must turn to the papers reprinted in the second volume of his remains, though even here we shall from time to time be reminded of the literary spirit which accepts what is not disproved rather than of the scientific spirit which doubts everything and holds fast only to that which is proved.

A. H. SAYCE

## OUR BOOK SHELF

*Handbook of Vertebrate Dissection.* Part II. "How to Dissect a Bird." By H. Newell Martin, D.Sc., M.D., M.A., and William A. Moale, M.D. (New York: Macmillan and Co., 1883.)

SOME months ago we noticed in these columns (vol. xxvii. p. 335) the first of a series of Handbooks of Vertebrate Dissection, by Drs. Martin and Moale—"How to Dissect a Chelonian." The second, "How to Dissect a Bird," has now appeared, and, as the type selected is the pigeon, this volume will doubtless be appreciated by a large number of students.

The general arrangement of the book is much the same as that of its predecessor, directions being given how to proceed step by step, so that the student, with its aid, ought to be able to gain a good knowledge of the anatomical characters of a bird. The skeleton, in particular, is described in great detail, and there are four good figures and a diagram of the skull, as well as a figure of the hind limb. It is, however, to be regretted that there are no illustrations of the soft parts, for figures of the skeleton—at any rate of allied forms—can be got in almost any text-book on Comparative Anatomy, while satisfactory drawings of the viscera, &c., are not so easily obtainable.

The directions are on the whole excellent, with one or two slight exceptions. The description of the air-sacs, for instance, is very indefinite, and gives no idea of their true relations. If the authors had glanced through Prof. Huxley's recent paper on the subject in the *Proceedings of the Zoological Society*, and compared the air-sacs of the pigeon with the description there given, there is no doubt that the position of these structures and their relations to the lungs would have been stated more clearly.

We must also call attention to the following points, which are not very accurate:—

Only one pancreatic duct is described instead of three. The inferior mesenteric artery, instead of the median sacral, is stated to be the termination of the aorta.

The descriptions of the thymus and thyroid glands appear to have been transposed.

The three divisions of the cloaca are not described, and the rudimentary right oviduct is not mentioned, though the "*Fallopian tubes*" are said to open into the cloaca.

It is a mistake to introduce questionable homologies into a book of this kind, especially when they are unsupported by fact. Thus the statement in § 118 that the "thin sheet of muscle which is closely adapted to the concave ventral surface of the lungs . . . represents the diaphragm of mammals," is certainly misleading. In the first place, the position and relations of these muscles are entirely different from those of the mammalian diaphragm, and, moreover, they receive their nerve-supply from the intercostals, the phrenic being absent. The fact that the phrenic arises so far forwards appears to indicate an entirely different origin for these two structures.

With these slight exceptions, however, the descriptions and directions leave little to be desired for clearness and accuracy. It is certain that accurate detailed directions are far more valuable for elementary teaching than more general ones; the student, once having mastered them, finds little difficulty in grasping the wider bearings of the subject. Such works as the present, therefore, which entail a careful examination of every point mentioned, not only save both student and demonstrator much trouble, but insure more accuracy in work. A series of pamphlets such as the authors intend to publish, treating of all the more important vertebrate types usually dissected in an ordinary course on comparative anatomy, will certainly prove most valuable.

*An Easy Introduction to Chemistry.* Edited by the Rev. Arthur Rigg, M.A., and Walter T. Goolden, M.A. New Edition Revised, pp. 148. (London: Rivingtons, 1883.)

THIS book is based on a "First Book of Chemistry," by Dr. Worthington Hooker, and is intended, we are told in the preface, "to convey information in respect to changes which are likely to attract the attention of young persons who observe and inquire."

It is questionable whether "young persons" do well in attempting to study chemistry; the chemical laboratory is not a place in every way suited to the requirements of youth, but without steady work in a laboratory no real progress in chemistry can be looked for. Should, however, any youth desire information regarding material changes which he observes around him, he will find a considerable amount of information in this little book; but should he be desirous to study chemistry, he will not we are afraid derive much assistance from this "Easy Introduction." Many experiments are described and numerous well-executed illustrations are given, but several of these experiments could not be performed by a beginner without the aid of a teacher or of much more detailed description than is given in the text. To read statements of the results of experiments is not the way by which young persons can acquire interest in or a knowledge of chemistry.

Although excellent in many ways, yet we cannot think this book will prove an efficient introduction to chemistry; a perusal of it may, however, serve to stimulate young persons to seek for an introduction to the science, some of the materials for the construction of which are put before them in this work.

*Practical Electric Lighting.* By A. Bromley Holmes, Assoc. Inst. C.E. Sixty-two Illustrations. (London: E. and F. N. Spon, 1883.)

IT is with pleasure that we shall watch the success of Mr. Holmes's little book on "Practical Electric Lighting." Mr. Holmes has clearly and simply put before the un-electrical public as much and no more of theoretical electricity as is necessary for his purpose, together with a

good general summary of the chief machines and appliances in present use.

Besides this, much useful information is given in the last two chapters, first, on the present economic state of electric lighting, and second, on the best means of applying the power to electric machinery. If there be one point in the book not so strong as the rest it is that the descriptions of the dynamos and lamps would have been better if they had entered a little more into detail.

C. C. S.

### LETTERS TO THE EDITOR

[*The Editor does not hold himself responsible for opinions expressed by his correspondents. Neither can he undertake to return, or to correspond with the writers of, rejected manuscripts. No notice is taken of anonymous communications.*]

[*The Editor urgently requests correspondents to keep their letters as short as possible. The pressure on his space is so great that it is impossible otherwise to insure the appearance even of communications containing interesting and novel facts.*]

#### Geology of the Congo

I HAVE received from one of the Baptist missionaries in the front of the Congo mission a basket of specimens of rocks and a letter giving some particulars of the geological structure of the localities. The letter may be interesting as the first news of this kind from the centre of Africa, on its western side, and I therefore place it at your service.

S. R. PATTISON

5, Lyndhurst Road, Hampstead, N.W., July 7

*Liverpool Station, B.M.S., Stanley Pool, Congo River, S.W. Central Africa, March 15, 1883*

S. R. PATTISON, Esq.

DEAR SIR,—Before leaving England in 1879 you made us a kind offer to render us any help in geological and mineralogical matters that lay in your power, and that kindness has been recalled to mind every time I have examined a piece of rock. I had seen such geological variety in the few parts of England that I had visited, that in my ignorance I was expecting to find a much greater variety out here and at least some fossil treasures. But in this, as you may guess, I have been disappointed.

In sending home some curios the other day, I inclosed a few native ingots of lead and copper, which I thought might interest you. They are "mined" in a district of the Bizunseke tribe called Noama, some twenty-five miles west-north-west of the Ntombi Mataka Falls of the river. I have not visited the place, but I believe de Brazza (concerning whom there have been some paragraphs in the newspapers lately) passed through this "mining district."

Although I believe that no metal from that part is ever sold to white traders, it is an important item in native trade with the far interior. Some are used to make bullets, others are recast to make anklets, &c. If the district is rich, or there is much silver in the lead, the French will perhaps work there.

The case of curios was sent away before I had intended. I had hoped to have added other things, and a piece of sandstone from the cataracts here.

Mr. Stanley indirectly hinted that Stanley Pool might be the crater of a volcano (extinct of course) which in old time had rent a rift in the hills, forming an exit to the pent-up waters of a vast interior sea. I am not sure how much of this was made public by him. It was, however, his opinion on our return from our first visit to the Pool. He speaks also of lava reefs, granite, gneiss, trap, &c.

Dr. Pechuël Löschke, late of the German Expedition, which spent some time (about five or six years ago) on the coast about the Kiolo and Chiloango Rivers, was for a short time in charge of the Belgian expedition here during Mr. Stanley's absence. He assures me that there is no trace of igneous action above Isangila at least. There may be traces of such action at the Velala Falls, which form the first bar to navigation from the sea. Between there and Isangila Falls quartz, slate, micaceous, and granitic (apparently) rocks are the rule.

Above Isangila limestone is abundant for about ten miles, above that slaty rocks are prevalent. Limestone crops out again about the country of the Basundi. This gives place to a red shale at the western boundary of the Babwende, and at the Ntombi Mataka Falls a red sandstone appears under the shale.